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ScienceDirect

Procedia - Social and Behavioral Sciences 118 (2014) 404 – 411

Procedia
Social and Behavioral Sciences

SoLLs.INTEC.13: International Conference on Knowledge-Innovation-Excellence: Synergy in Language Research and Practice

Teachers' Evaluation on The Motivational Aspects of a Web-based Resource

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Abstract

The development of teaching and learning materials is part and parcel of improving the delivery of knowledge from teachers to students. Materials which are meant for teaching and learning process either the paper-based or computer-based forms would be effective if they go through certain procedure to ensure that the materials are of good and satisfying quality. The objective of this paper is to measure teachers' evaluation on a web-based resource developed for English Language Literature Components meant for secondary school. The evaluation was done using one main instrument known *as WebMac Pro* consisting of 32 items. There are four main dimensions being analyzed which are stimulating, meaningful, organized and easy-to-use dimensions. Analysis of these subject-matter experts' evaluation was used as the guideline for the improvement of the actual website. Results from their evaluation showed that the website are found to be highly stimulating, meaningful, organized and easy-to use for the learning of English language literature components in the school. Thus, the teachers' view as the subject-matter experts are found to be beneficial in improving as well as increasing the usability and quality of the materials developed. The positive outcome of this motivational analysis of the developed website does not only provide useful feedback to improvise the flawed material but also open up new means of networking with these teachers. It is recommended that collaborative work with other stakeholders such as teachers should be taken into considerations in the process of developing any teaching and learning materials.

Selection and peer-review under responsibility of Universiti Kebangsaan Malaysia.

Keywords:subject-matters' evaluation; stimulating; meaningful; organized; easy-to-use

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1877-0428
Selection and peer-review under responsibility of Universiti Kebangsaan Malaysia.
doi:10.1016/j.sbspro.2014.02.055

1. Introduction

The development of teaching and learning materials is part and parcel of improving the delivery of knowledge from teachers to students. The use of good teaching materials portrays the teachers' teaching qualities. Materials which are meant for teaching and learning process either the paper-based or computer-based form would be effective if they go through certain procedure to ensure that the materials are of good and satisfying quality.

The processes of developing the materials are actually important (Richards, 2001). In the process of developing any educational materials, there are two common things which would be involved: the formative and the summative evaluation. Formative evaluation would be conducted during the development phase; it seeks to understand strengths and amplify, understand weaknesses and mend the educational materials. On the contrary, summative evaluation is conducted to make judgment and to document concrete evidence of accomplishment. Fakomogbon (1998) indicated that, development of any instructional media demands going through the following stages: (a) design, (b) production and (c) evaluation. In order to carry out these functions successfully, it is important that persons with different professional backgrounds should be involved as a team.

The term technology-based materials would always be associated with the use of computers. Webster and Murphy (2008) stated that with the constantly up-and-coming new technologies, the field of education is not only being challenged to adapt but also being given with stimulating opportunities. The use of Computer Assisted Language Learning (CALL) materials as an invigorating supplementary tool can break the mundane monotony of classroom routine activities. Thus, the main objective of this formative evaluation phase of an e-Learning material is to find out the experts' evaluation towards the motivational aspects of the e-Learning material based on four main dimensions: S-Stimulating, M-Meaningful, O-Organized and E- Easy-to-use**.**

2. Related Work

According to McGregor (2007), the teacher and his/her understanding of teaching materials can have a great impact on the way thinking lessons are being performed. However, choosing the suitable materials that would fit the students' needs are not easy whereby teachers need to make necessary considerations before using them in the class (Zohrabi & Mohd Shah, 2009). One issue which emerged with regard to the use of teaching is whether the teacher needs to adapt or adopt the materials.

In the case of e-Learning material evaluation, Aquaro and DeMarco (2008) pointed that when evaluating a website, there are three main areas to focus on: the content, the overall structure and accessibility to all. Besides, it is also a good practice if the evaluation can be done regularly as to ensure the accuracy of the material and up-to-date information is provided to the users (2008). Smith and Ragan (2005) pointed out that evaluation for any kind of instructional materials is important, critical and essential. These two authors divided the process of evaluating the instructional materials into two parts, the formative and summative evaluation, which aims to serve different purpose of evaluation. Formative evaluation as defined by Smith and Ragan (200, p.327) is where *"…the designer evaluates the materials to determine the weakness in the instruction so that revisions can be made to make them more effective and efficient. Then she knows whether the instructional materials are "there" yet, or whether she needs to continue the design process*". On the other hand, summative evaluation is conducted in order to "…determine the effectiveness of the instructional program…" Smith and Ragan (2005, p. 350).

3. Methodology

In order to investigate the teachers' evaluation towards this English language literature components website known as e-Lit Website based on the four dimensions, the following research questions lead the study:

a) What are the teachers' evaluations towards the motivational aspects of the website?

b) What are the teachers' expectations of success towards the website?
c) What is the rating given by these teachers towards the website?

This formative evaluation sought the views of participants who were ten experienced teachers which could be categorized as the English language excellent teachers, Head of Language Departments who were also English language teachers, and ICT teachers. These teachers were purposely selected based on the criteria of their teaching experience, exposure towards the latest syllabus for English language literature components as well as knowledge towards using computers and internet. In terms of the geographical locations of the experts, they came from a few states such as Negeri Sembilan (n=6), Pahang (n=1), Johor (n=1), Malacca (n=1) and Wilayah Persekutuan Kuala Lumpur (n=1).

The instrument used for this research was the Website Motivational Analysis Checklist Professional (*WebMAC Pro*) adapted from Small and Arnone (1999). The instrument consists of 32 items which represent four main dimensions: stimulating, meaningful, organized and easy to use dimensions. The instrument used 5 point Likert Scale as the value rated towards each item where 5 being strongly agree, 4 being agree, 3 being slightly agree, 2 being disagree and 1 as being strongly disagree. There is also a recommendation question and two fill in questions. The min scores for each respondent was calculated and transferred according to the following columns: S-Stimulating, M-Meaningful, O-Organized and E- Easy-to-use columns.

For the process of collecting the data, these experts were approached and given detailed explanation personally on how to access and evaluate the website. This was done in order to make their evaluation process easier. Reviewer Information Sheet was attached with the evaluation forms. The analysis of the data was done based on the scores for each respondent. In order to present the descriptive findings, the researcher calculated and transferred all the scores for each respondent based on these aspects: S for Stimulating, M for Meaningful, O for Organized and E for Easy-to-use. The highest score for each category is a 40 and the scores are presented in a visual representation. The next step is where the scores are calculated such as following

S+M= V (value dimension / how stimulating the website is)

O+E=XS (score which reflects how organized and easy-to-use it is)

These scores, V and XS, are then plotted on a scoring grid in order to show the value and expectation for success; the rubric for the motivational criteria as measured by the WebMAC Professional instrument (Arnone & Small 1997) was referred for the detailed criterion.

4. Findings

4.1. The Motivational Aspects of The Website

From the analysis of the data, the total scores for each aspect of the Stimulating (S), Meaningful (M), Organized (O) and Easy-to-use (E) aspects, showed that the respondents agreed that the website has the motivational qualities focused in the evaluation. The frequencies of each aspect are tabulated descriptively in order to display the SMEs' responses towards all items in the evaluation form.

The first results of the analysis are the Stimulating aspect of the website as perceived by these subject-matter-experts. Majority of the respondents gave high marks for this aspect which shows that the website is attractive (80% agreed and 20% strongly agreed), eye-catching title (20% slightly agreed, 40% agreed and 40% strongly agreed), fun (80% agreed and 20% strongly agreed). Whereas in terms of the information on the topics, 70% (n=7) agreed and 30% (n=3) strongly agreed that they are interesting, as for variety unique features, 90% (n=9) agreed and another 10% (n=1) strongly agreed that this aspect should make the website more interesting for students. These ten subject-matter experts also evaluated the website of unexpected surprise factors which 70% (n=7) slightly agreed. Another aspect which categorized the website as stimulating is the colours and patterns of the website; the analysis found that 10% (n=1) disagreed, another 70% (n=7) agreed and the remaining 20% (n=2) strongly agreed the colours and background are pleasing.

Analysis of the Meaningful feature of the website seemed to illustrate that majority of the subject-matter experts agreed that the website is meaningful. Based on the descriptive findings, 10% (n=1) of the experts slightly agreed that the menu at the beginning of the web site described the content within the website, whereas another 40% (n=4) agreed and 50% (n=5) strongly agreed. Besides, the results also display that these subject-matter experts viewed the e-Lit website provides valuable links with 10% (n=1) slightly agreed, 60% (n=6) and 30% (n=3) strongly agreed. In terms of the information, the experts viewed that the website is a) from credible sources with 10% (n=1) slightly agreed, 70% (n=7) agreed and 20% (n=2) strongly agreed; b) current and up-to-date with 20% (n=2) slightly agreed, 30% (n=3) agreed and 50% (n=5) strongly agreed; c) accurate and unbiased with 60% (n=6) agreed and remaining 40% (n=4) strongly agreed; d) not unimportant or redundant with 20% (n=2) slightly agreed, 40 % (n=4) agreed and strongly agreed respectively. Besides, 60% (n=6) agreed and 40% (n=4) strongly agreed that the website provides opportunities for interactivity to engage students as well as 40% (n=4) agreed and strongly agreed respectively that it provides opportunities to communicate with the author.

The end results of the Organized features of the website also revealed that the subject-matter experts evaluated it as organized as it is based on the breakdown of the findings. The results showed that 80% (n=8) of the experts agreed and 20% (n=2) strongly agreed that the visual or audio information included in the website helps to clarify the topic, the purpose is clear with 50% or n=5 respectively agreed and strongly agreed, the directions for using the website are simple and clear where 80% (n=8) agreed and 20% (n=2) strongly agreed. With regard to the information, 10% (n=1) slightly agreed, 40% (n=4) agreed and 50% (n=5) strongly agreed that it is useful; 80% (n=8) agreed and 20% (n=2) strongly agreed that it is presented using clear and consistent language as well as style; and 10% (n=1) slightly agreed, 40% (n=4) agreed and 50% (n=5) strongly agreed that it is appropriate amount of information on the topic. Another findings which categorized the website as organized is the text is written without grammatical, spelling or other errors; a total of 10% (n=1) of the experts slightly agreed, 20 %(n=2) agreed and 70% strongly agreed over this matter. The website also considered as organized when 10% (n=1) slightly agreed, 40% (n=4) agreed and 50% (n=5) strongly agreed that they can return to the home page or exit no matter where they are in the website.

Empirical evidence to the analysis of the Easy-to-use feature of the e-Lit Website is found from the descriptive analysis done. From the analysis, 10% (n=1) the subject-matter experts disagreed that navigating website does not require special skills, whereas 10% (n=1) slightly agreed, 50% (n=5) agreed and 30% (n=3) strongly agreed. Apart from that, they also agreed that the website has a help function which can be used at any time and the analysis shows 10% (n=1) slightly agreed, 30% (n=3) agreed and 60% (n=6) strongly agreed and 30% (n=3), slightly agreed, 40% (n=4) agreed and 30% (n=3) strongly agreed that the buttons as well as other navigation mechanisms for moving around at this web site work the way they should. In terms of control, the experts responded that, they can control: a) the pace of moving through the website with 80% (n=8) agreed and 20% (n=2) strongly agreed with this fact; b) the information they wish to see or show to the students where 10% (n=1) slightly agreed, 60% (n=6) agreed and 30% (n=3) strongly agreed. In addition to that, 10% (n=1) slightly agreed, 80% (n=8) agreed and 10% (n=1) strongly agreed that the graphic are crisp and clearly visible; 30% (n=3) slightly agreed, 40% (n=4) agreed and 30% (n=3) strongly agreed the hyperlinks are active and fully functioning; and finally, 20% (n=2) slightly agreed, 50%(n=5) agreed and 30% (n=3) strongly agreed that the amount of time it takes for pictures, games, videos, etc, to appear on the screen at this web site is reasonable for teaching and learning situations.

The next step for the analysis of the raw data was calculating the total scores from each subject-matter experts in order to get the average scores for all the dimensions (Stimulating (S), Meaningful (M), Organized (O) and Easy-to-use (E))**.** Table 1 shows the total scores as well as the average scores for each respondent.

Table 1: The Total and Average Scores for each respondent

SME/Score	SME 1	SME 2	SME 3	SME 4	SME 5	SME 6	SME 7	SME 8	SME 9	SME 10	Total	Average /40
Stimulating	39	30	34	32	29	34	32	33	30	31	324	32.4
Meaningful	37	35	36	29	30	35	35	32	30	29	328	32.8
Organized	37	34	33	34	32	35	34	34	29	34	336	33.6
Easy-to-use	40	34	32	32	31	34	34	31	28	34	330	33.0

The average scores were subsequently presented in the bar graph below in order to make the results more visible. From Figure 1, it could be seen that all the ten experts gave high rate for their evaluation towards the website. The website was viewed as being organized with average score of 32.4, easy-to-use with average score of 32.8, meaningful with average score of 33.6 and stimulating with average score of 33.0.

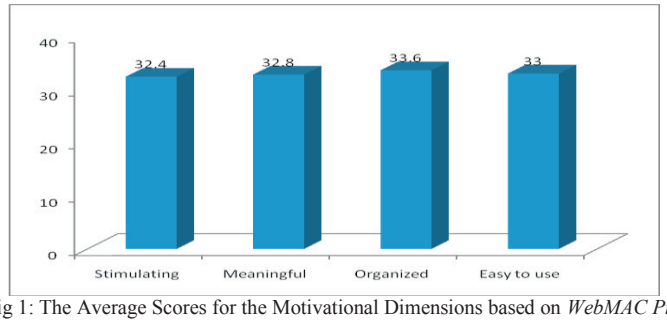

Fig 1: The Average Scores for the Motivational Dimensions based on *WebMAC Pro*

The aim of the evaluation was to look at the motivational quality of the website, thus, the scoring was then tabulated in a scatter plot in order to find out whether it was motivating or it needed improvement. This step was taken based on the method used by Small and Arnone (1999) in order to display the findings of the evaluated website as whether it is highly motivating, needs some improvement or needs much improvement. The scatter plot in Figure 2 displays that the website is considered as a highly motivating website as all the average scores spread out in this area.

Fig 2: The Average scores plotted based on *WebMAC Pro*

4.2. Teachers' Perceptions Towards The Success of the Website

According to the calculation done in order to look at the website's value as well as expectation of success, the findings reveal that the experts believed that it has high expectation of success and high value. The results based on the calculation done with the S-Stimulating, M- Meaningful ,O- Organized, E- Easy-to-use aspects, show the V value (S+M) is 65.2 and the XS value (O+E) is 66.6. This is as displayed in Figure 3.

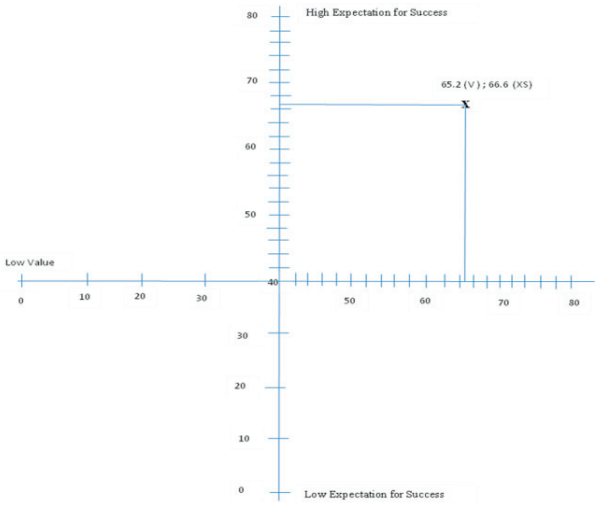

Fig 3: The value and expectation of success of the Website

4.3 The Rating of the Website

The analysis for the data collected from these ten teachers shows the website is rated as an Awesome website. With the high value and high expectation of success, the scores were then plotted in another graph in order to look at the rating given by the teachers as the subject matter experts. The results are as seen in Figure 4; the shaded area is where the rating of the website.

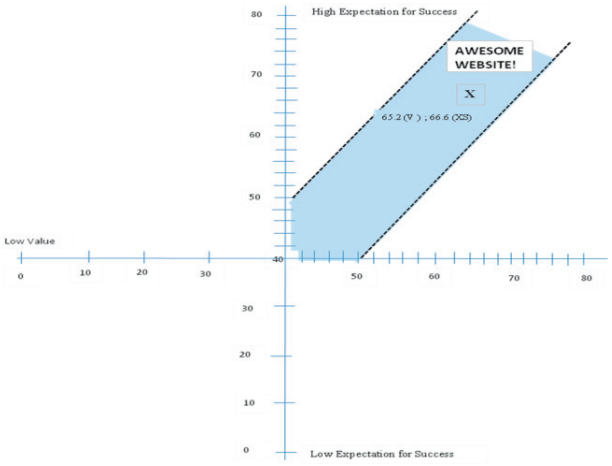

Fig 4: The rating of the website

5. Discussions

Hung and Khine (2006) mentioned in their critical review that it is vital and in fact appropriate for educators to engage learning with the emerging technologies because they view that in today's era, the notion "…engagement with learning is likely to mean engagement with technology". Involving users in the process of evaluating the learning material is important because they "…may play a role in the development of web pages, acting as 'curators'...of good pages" (Aquaro & DeMarco, 2008).

The question of why should any educational website be checked for its motivational quality in it or not should now be weighed up by anyone who is developing it. Any developed instructional materials should take into account that its motivational quality should be evaluated in order to engage students in the learning. According to Small and Arnone (1999), since websites are now considered as critical and unique resources for students, therefore evaluating their motivational quality is also required. Developing teaching and learning materials has always been an integral part of the curriculum components and the task of evaluating the developed instructional materials should not be done alone (Rashidah Rahamat et al, 2011). Brown (1995) believed that the teachers are the individuals who know best when to use and how to use the materials. Thus, the teachers' involvement in evaluating any instructional materials should be done collaboratively with the developer of the materials since they are the people who are essential execution of any innovation and the implementation might not be successful if the teachers are left out from participating in the process of creating innovations (Nunan & Wong, 2005). Both of them pointed that teachers should be given support and chance to collaborate with others who are involved with the innovation of teaching materials using technology. According to them, the collaboration between teachers as practitioners and materials developers is vital not only for the teachers' motivation but also for "…the sharing of ongoing experiences, uncertainties, successes, problems, difficulties, materials, and resources in a supportive environment" (Nunan & Wong, 2005, p. 220). As Nunan and Wong (2005, p. 220) stated this networking will reinforce learning as well as professional growth because they '…can share experiences and good practices in using IT…and collaborating to construct knowledge and develop resources." In this particular study, the networking has been automatically built up during the face-to-face meetings with the teachers when explanation on the content and procedures of evaluating the website was done.

6. Conclusion

Teachers as one of the stakeholders in education should not be left behind in the process of developing and evaluating any teaching materials produced. Their roles are important not only to ensure the quality of the material, but also important to expand the networking between teachers and researchers. The positive outcome of the motivational analysis of the developed website does not only provide useful feedback to improvise any shortage found in the material but also open up new means of networking with these teachers. In short, it is recommended for any development of teaching and learning materials to take into consideration active participations from teachers throughout the development processes.

Acknowledgements

We would like to acknowledge the ten experience and dedicated teachers who took part in the evaluation process for the developed website.

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